TMB Technology Investment Prioritization Evaluation Criteria (Draft 9/6/11)

						Score Meaning				
#	Criterion	Weight	Score (0-4)	Weighted Score	General Description/Question	4	3	2	1	0
1	Scientific Ranking of Applicable Mission Concept	4	4	16	Scientific priority as determined by the Decadal Review, other community-based review, other peer review, or programmatic assessment. Captures the importance of the mission concept which will benefit from the technology.	Highest ranking	Medium rank	Low rank	Ranking not known	No clear applicable mission concept
2	Overall Relevance to Applicable Mission Concept	4	4	16	Impact of the technology on the applicable mission concept. Captures the overall importance of the technology to the mission concept.	Critical key enabling technology - required to meet mission concept goals	Highly desirable technology - reduces need for critical resources and/or required to meet secondary mission concept goals	Desirable - offers significant benefits but not required for mission success	Minor implementation improvements	Unknown
3	Scope of Applicability	3	4	12	How many mission concepts could benefit from this technology? The larger the number, the greater the reward from a successful development.	The technology applies to multiple mission concepts across multiple agencies	The technology applies to multiple mission concepts across multiple NASA programs	The technology applies to multiple mission concepts within a single NASA program	The technology applies to a single mission concept	Unknown
4	Time To Anticipated Need	3	4	12	How much time is available before the technology is needed to be at TRL6?	3 years or less	> 3 to 5 years	> 5 to 7 years	> 7 to 9 years	> 9 years
5	Scientific Impact to Applicable Mission Concept	2	4	8	Impact of the technology on the scientific harvest of the applicable mission concept. How much does this technology affect the scientific harvest of the mission?	Needed for baseline	Major improvement (> ~2x) to primary scientific goals	Only enables secondary scientific goals	No scientific improvements	Unknown
6	Implementation Impact to Applicable Mission Concept	2	4	8	Impact of the technology on the implementation efficiency of the applicable mission concept. How much does this technology simplify the implementation or reduce the need for critical resources?	Needed for baseline	Enables major savings in critical resources (e.g., smaller launch vehicle, longer mission lifetime, smaller spacecraft bus, etc.) or reduces a major risk	Enables minor savings in critical resources or reduces a minor risk	No implementation improvements	Unknown
7	Schedule Impact to Applicable Mission Concept	2	4	8	Impact of the technology on the schedule of the applicable mission concept. How much does this technology simplify the implementation to bring in the schedule?	Technology drives the mission concept critical path	Technology drives the critical path for a key component	Technology drives the critical path for a minor component	Technology is not likely to be on critical path	Unknown
8	Risk Posture Impact to Applicable Mission Concept	2	4	8	Impact of the technology on the risk of the applicable mission concept. How much does this technology reduce the risk?	Major mission concept risks directly mitigated by this technology, workarounds not currently known	Major mission concept risks directly mitigated by this technology, workarounds currently known	Minor mission concept risks mitigated by this techology	No risk benefits	Unknown
9	Definition of Required Technology	1	4	4	How well defined is the required technology? Is there a clear description of what is sought?	Exquisitely defined	Well defined, but some vagueness	Well defined, but some conflicting goals not clarified	Not well defined, lacking in clarity	Poorly defined, not clear at all what is being described
10	Other Sources of Funding	1	4	4	Are there other sources of funding to mature this technology? If funding is expected to be available from other sources, this will lower the prioritization.	No, the Program is the only viable source of funding.	Interest from other sources can be developed during the development time of the technology	Interest from other sources is likely during the development time of the technology	Already being developed by other programs, agencies, or countries.	Unknown
11	Availability of Providers	1	4	4	Are there credible providers/developers of this technology? Where providers are scarce, there may be a compelling need to maintain continuity for the technology in the event there are no replacement technologies.	Single competent and credible provider/developer known	Two competent and credible providers/developers known	Multiple competent and credible providers/developers known	Providers/developers known but no assurance of competence or credibility	Unknown
	Total Score:			100						